What is claimed is:

1. A method of streaming media to a client comprising:

receiving a request from a client for a media stream;

computing a receiving procedure for the client;

transmitting the receiving procedure to the client;

initiating a first multicast stream such that the client can utilize the receiving procedure to receive a first portion of the media stream from the first multicast stream and a second portion of the media stream from a second multicast stream.

2. The invention of claim 1 wherein the client can further utilize the receiving procedure to receive a third portion of the media stream from a third multicast stream.

3. The invention of claim 1 wherein the receiving procedure is computed after a step of computing a merge tree incorporating the request from the client.

4. The invention of claim 3 wherein the merge tree is a Fibonacci merge tree.

5. A method of streaming media to a plurality of clients comprising:

receiving reservation requests for a media stream from a plurality of clients;

constructing a merge tree based on the reservation requests;

scheduling a plurality of multicast transmissions of the media stream based on the merge tree.

6. The invention of claim 5 wherein the merge tree is constructed to minimize the cost of the merge tree.

7. The invention of claim 6 wherein the merge tree is a Fibonacci merge tree.

8. The invention of claim 5 wherein the merge tree is constructed to minimize the cost of a forest of merge trees further comprising the merge tree.

9. A method of streaming media to a plurality of clients comprising:

constructing a merge tree based on anticipated requests for a media stream;

scheduling a plurality of multicast transmissions of the media stream based on the merge tree.

10. The invention of claim 9 wherein the anticipated requests for the media stream are scheduled to arrive at every time unit.

11. The invention of claim 10 wherein the merge tree is a Fibonacci merge tree.

12. The invention of claim 9 wherein the merge tree is a static merge tree with a fixed number of nodes.

13. A method of streaming media to a client comprising:

receiving a request from a client for a media stream;

taking a first merge tree further comprising a right frontier and constructing a second merge tree which incorporates the request into the right frontier of the first merge tree; and

scheduling a plurality of multicast transmissions of the media stream, including a multicast transmission to the client, based on the second merge tree.

14. The invention of claim 13 wherein the second merge tree is constructed to minimize an incremental merge cost.

1   15. The invention of claim 13 wherein the second merge tree is

2   constructed such that the request is represented as a node of a parent node in the

3   first merge tree closest to the node.

1   16. The invention of claim 13 wherein the second merge tree is an

2   infinite merge tree.

1   17. The invention of claim 16 wherein the infinite merge tree is an

2   infinite Fibonacci merge tree.

1   18. A machine-readable medium comprising executable program

2   instructions for performing a method on a computer comprising the steps of:

3   transmitting a request for a media stream to a server;

4   obtaining a receiving procedure from the server;

5   in accordance with instructions in the receiving procedure,

6   receiving and buffering a first portion of the media stream from a first multicast

7   channel while receiving and buffering a second portion of the media stream from

8   a second multicast channel.